

REMARKS

Claims 1-13, 17, and 20-25 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

In the Office Action, the Examiner indicates that only claims 3 and 4 stand rejected under 35 U.S.C. § 103(a). However, claims 3-5, 8-10, and 12-13 have additionally been addressed under the rejection. Applicants have proceeded, therefore, to treat claims 5, 8-10, and 12-13 as if they were also rejected under 35 U.S.C. § 103(a). If this course of action is incorrect, Applicants respectfully request that the Examiner address this issue in any Office Communication that may follow.

INFORMATION DISCLOSURE STATEMENT

Applicant respectfully informs that Examiner that the Information Disclosure Statement filed on November 21, 2002, included a typographical error on the Form 1449 submitted therewith. Specifically, under the Foreign Patent Documents section of the Form 1449, Japanese Patent Application 02-245735 is incorrect. The correct application number is 02-245736. Please be advised, however, that although the application number was listed incorrectly on the Form 1449, a copy of the correct reference, 02-245736, was submitted. As such, when the present application issues as a patent, the correct reference to be listed under the References Cited section should be 02-245736.

REJECTION UNDER 35 U.S.C. § 102

Claims 1 – 2, 7, 11 and 17 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Lee et al. U.S. Pat. No 6,219,124 (“124”). This rejection is respectfully traversed.

Claim 1 has been amended to call for the conductive material that connects the first transparent electrode and the first wiring to be at a connection region; and a driver IC that is connected to the first wiring at an IC mounting region of the second substrate, wherein the first wiring comprises a metal oxide film and a conductive film having a resistance lower than that of the metal oxide film. Further, claim 1 has been amended to call for the conductive film to be formed above the second substrate in an area other than at the connection region and other than at the IC mounting region. Lastly, claim 1 has been amended to call for the metal oxide film to be formed on the conductive film in this area without any of the metal conductive layer interposed between the metal oxide film and the second substrate at the connection region and at the IC mounting region.

Claim 11 has also been amended to call for the conductive material connecting the first transparent electrode and the first wiring to be at a connection region. Further, claim 11 has been amended to call for the second transparent electrode to be formed from a metal oxide film provided on the second substrate, a driver IC connected to the second transparent electrode at an IC mounting region of the second substrate, and a second wiring which is provided on the second substrate and which is connected to the second transparent electrode. Moreover, claim 11 has been amended such that the first and the second wirings each comprise the metal oxide film of the second transparent electrode, and the conductive film has a resistance lower than that of the

metal oxide film, wherein the conductive film is formed above the second substrate in an area other than at the connection region and other than at the IC mounting region. Lastly, claim 11 has been amended such that the metal oxide film is formed on the conductive film in the area and without any metal conductive layer interposed between the metal oxide film in the area and without any metal conductive layer interposed between the metal oxide film and the second substrate at the connection region and at the IC mounting region.

Claim 17 has been amended to call for a step of connecting the first transparent electrode and the first wiring by a conductive material at a connection region, wherein the first wiring comprises a metal oxide film and a conductive film having a resistance lower than that of the metal oxide film. Claim 17 also has been amended to call for the conductive film to be formed above the second substrate in an area other than at the connection region and other than at the IC mounting region. Lastly, claim 17 has been amended to call for the metal oxide film to be formed on the conductive film in the area and without any metal conductive layer interposed between the metal oxide film and the second substrate at the connection region and at the IC mounting region.

Applicants respectfully assert that these amendments clarify that no metal conductive layer is interposed between the metal oxide film and the second substrate at either a connection region where the first transparent electrode and the first wiring are connected, or an IC mounting region where the driver IC is disposed. This is beneficial because the metal oxide film is subjected to a concentration of pressure and stress at the connection region and at the IC mounting region. When a metal conductive layer is interposed between the metal oxide film and the second substrate at these locations,

however, the pressure and stress can separate the metal conductive layer and the metal oxide film at their interface, which may result in peeling. Also, when a metal conductive layer is located beneath the metal oxide film, the metal conductive layer can be exposed to moisture and air through cracks or discontinuities in the metal oxide film. As such, the metal conductive layer can become corroded. Further, if the corrosion progresses, the metal oxide film itself can peel away which may result in a poor continuity or breakage of the wiring. In the claimed invention, however, these problems do not occur because no metal conductive layer exists between the metal oxide layer and the substrate at the connection region or at the IC mounting region.

Lee, on the other hand, teaches the interposing of a chromium layer 105 between an ITO layer 109 and a lower substrate 1900 at both a short region A and a pad region B (Figure 2). Because of the existence of the chromium layer 105, the above-described problems can occur in the configurations taught by Lee. Lee, therefore, teaches a configuration the claimed invention aims to avoid. As such, Lee teaches away from the claimed invention. Since Lee teaches away from the claimed invention, the claimed invention is not anticipated and, further, the claimed invention would not have been obvious. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

REJECTION UNDER 35 U.S.C. § 103

Claims 3 – 4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over 6219124 ("124"). This rejection is respectfully traversed.

Claims 3-5, 8-10, and 12-13 are dependent on either claim 1 or 11. These claims should be in condition for allowance for at least the same reasons as their independent base claims, addressed above. As such, reconsideration and withdrawal of this rejection is respectfully requested.

ALLOWABLE SUBJECT MATTER

The Examiner states that claim 6 would be allowable if rewritten in independent form to include the limitations of the base claim and any intervening claims. Applicants, therefore, have added independent claims 23, 24, and 25 which include the subject matter from claim 6 that was indicated as being allowable. As such, claims 23, 24, and 25 should be in condition for allowance.

NEW CLAIMS

New claims 20-25 have been added. Claims 20, 21, and 22 are dependent on newly amended claims 1, 11, and 17, respectively. Favorable consideration of these new claims is respectfully requested. No new matter has been added.

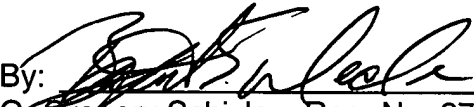
New claims 23-25, as stated above, are independent claims that include the subject matter of claim 6, which was indicated as being allowable. As such, these claims should be in condition for allowance. Notwithstanding, favorable consideration of these new claims is also respectfully requested.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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